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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/441,083	11/16/1999	KIYOSHI SUKEGAWA	1614.1011	3835
21171	7590	06/28/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			TRAN, DZUNG D	
			ART UNIT	PAPER NUMBER
			2638	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/441,083

Applicant(s)

SUKEGAWA ET AL.

Examiner

Dzung D Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on amendment filed in 03/04/2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-11 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. Claims 3 and 5 are objected to because of the following informalities:

In 3 and 5, "the transmission line monitoring apparatus as claimed in claim 2" on lines 1 and 2 should be change to "the transmission line monitoring apparatus as claimed in claim 1". The change is required to provide a consistency in the claim. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 12-17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jennings et al. US publication no. 2002/0015200 in view of Koga et al. US patent no. 5,995,254 and further in view of Green et al. US patent no. 6,879,619.

In considering claims 1-5, 12-17 and 18, Jennings discloses a system and method for monitoring and characterizing optical links, the transmission line monitoring comprising:

a first optical coupling unit (figure 2, element 124, paragraph 0016, line 3) which couples a down data signal of a first wavelength (figure 2, element  $\lambda_2$ , paragraph 0016,

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line 4) and a test signal (same as claimed examination signal) of a second wavelength (figure 2, element  $\lambda_1$ , paragraph 0016, line 2) so as to transmit a first coupled signal ( $\lambda_1$ ,  $\lambda_2$ ) to a lower apparatus (paragraph 0016, lines 5-6);

a first optical dividing unit (figure 2, element 128, paragraph 0016, line 7) to demultiplex said first coupled signal ( $\lambda_1$ ,  $\lambda_2$ ) from said optical coupling unit so as to divide and split said first coupled signal ( $\lambda_1$ ,  $\lambda_2$ ) into said down data signal with the first wavelength ( $\lambda_2$ ) and said examination signal with the second wavelength ( $\lambda_1$ ), said examination signal ( $\lambda_1$ ) being return;

a second optical coupling unit (figure 2, element 130, paragraph 0016, line 9) which couples an up data signal with the third wavelength ( $\lambda_3$ ) and said examination signal ( $\lambda_1$ ) from said first optical dividing unit 128 so as to transmit a second coupled signal ( $\lambda_1$ ,  $\lambda_3$ ) toward a host apparatus;

a second optical dividing unit (figure 2, element 126, paragraph 0017, line 9) to demultiplex said second coupled signal ( $\lambda_1$ ,  $\lambda_3$ ) from said second optical coupling unit 130 so as to divide said second coupled signal ( $\lambda_1$ ,  $\lambda_3$ ) into said up data signal with the first wavelength ( $\lambda_3$ ) and said examination signal with the second wavelength ( $\lambda_1$ );

a monitoring shelf unit 122 which monitors a fault and a location of said fault by using said examination signal with the second wavelength  $\lambda_1$  (page 2, paragraph 0018, lines 1-10). Jennings differs from claims 1 and 12-17 of the present invention in that Jennings does not specifically disclose a specific wavelength (for example  $\lambda_2$ ) for an up data signal (e.g. the invention claimed the up data signal of the first wavelength  $\lambda_2$ ) and

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wherein the first optical coupling unit, said first optical dividing unit, said second optical coupling unit, and said second optical dividing unit are formed of passive elements.

Koga discloses a DWM light transmitting system which can monitor its transmission line (abstract) having the same wavelength ( $\lambda_1$ ) for transmitting the down data signal and up data signal (figure 2). Since the down data signal and up data signal is transmitting through different links (e.g. up line and down line) and therefore no interference between down data signal and up data signal, it would have been obvious to an artisan at the time of the invention was made to include the teaching of Koga in the transmission line monitoring of Jennings. One of an ordinary skill in the art would have been motivated to do that in order to use the same components (e.g. same LED for outputting same wavelength, or filter for filtering the same wavelength) through out the system, thus it reducing maintenance costs associated with the system.

Green discloses a multiplexer/demultiplexer is a passive optical device (figure 1, element 120, col. 4, lines 58-65. At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to replace the demultiplexer, multiplexer of Jennings with the passive multiplexer/demultiplexer taught by Green. One of ordinary skill in the art would have been motivated to do this in order to formed a passive optical transmission system that is the optical system for transmitting the optical line without optical/electrical conversion, thus it's reduce the system cost.

In considering claim 3, Jennings further discloses a laser test source (same as first examination signal generator) (figure 2, element 120) which generates said examination signal with the second wavelength (figure 2, element  $\lambda 1$ ).

In considering claim 5, Jennings further discloses a WDM coupler 128 which divides an input down data signal into two signals, one signal being converted into said down data signal with the first wavelength, the other signal being converted into said examination signal with the second wavelength.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jennings et al. US publication no. 2002/0015200 in view of Koga et al. US patent no. 5,995,254 and further in view of Tsushima et al. US patent no. 5,500,756.

In considering claim 4, as per claims above, Jennings and Koga discloses all the limitations and Koga further disclose monitoring unit including which monitors a signal level of said examination signal with the second wavelength and, if said signal level is lower than a predetermined signal level (column 3, lines 21-25). The combination of Jennings and Koga does not disclose an alarm information output unit which monitors a signal level of the examination signal with the second wavelength and, if the signal level is lower than a predetermined signal level, then outputs an alarm information and insert the alarm information into an up data signal to be transmitted to the host apparatus and controls start and stop of the alarm information output unit and start and stop of the alarm information display/transferring unit. Tsushima from the same field of endeavor, discloses an optical system having a supervisory equipment (see figure 10) including a

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power monitor 9 for detecting data power  $P_d$  and a controller 10 for comparing with the normal value to judge that whether the optical equipment is failure then output an alarm signal (col. 2, line 62 to col. 3, line 8). It would have been obvious to an artisan at the time of the invention was made to include the teaching of Tsushima in the transmission line monitoring of Jennings and Koga. One of an ordinary skill in the art would have been motivated to do that in order to inform the system maintenance technician (visible or audible) of the system failure information (e.g. fault location or failure equipment).

Regarding claims 19-24, Koga further discloses in figure 2, up data signal with the first wavelength  $\lambda_1$  includes at least portion of said down data signal (figure 2, col. 3, lines 60-67).

5. Claims 6-11 are allowed.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DT  
06/25/2005



**KENNETH VANDERPUYE**  
**PRIMARY EXAMINER**